

# THE AMERICAN JOURNAL OF PATHOLOGY

*Official Publication of  
The American Association of Pathologists and Bacteriologists*

## BOARD OF EDITORS

EDWARD A. GALL, EDITOR-IN-CHIEF

ORVILLE T. BAILEY

DAVID G. FREIMAN

JOEL G. BRUNSON

GABRIEL C. GODMAN

ALVIN J. COX, JR.

HOWARD T. KARSNER

WILLIAM J. CROMARTIE

JOHN G. KIDD

R. PHILIP CUSTER

BENJAMIN H. LANDING

RICHARD H. FOLLIS, JR.

EMORY D. WARNER

EDITORIAL ASSISTANT  
JANET E. SMITH

VOLUME XLI

(July through December)

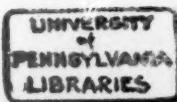
1962

HOEBER MEDICAL DIVISION  
HARPER & ROW, PUBLISHERS

COPYRIGHT © 1962  
BY THE AMERICAN ASSOCIATION OF  
PATHOLOGISTS AND BACTERIOLOGISTS

M610.5  
Am 393

v. 41, pt. D 1962



CONTENTS OF VOLUME XLI

1962

(July through December)

JULY, 1962. NUMBER 1

	PAGE
CYTOLIC AND CYTOCHEMICAL STUDIES OF NEUROGLIA. I. A STUDY OF THE PROBLEM OF AMITOSIS IN REACTIVE PROTOPLASMIC ASTROCYTES. (With 14 illustrations.) <i>Lowell W. Lapham</i> . . . . .	1
CHANGES IN SKELETAL MUSCLE ASSOCIATED WITH CACHEXIA. (With 17 illustrations.) <i>Oscar S.M. Marin and D. Denny-Brown</i> . . . . .	23
A RADIOAUTOGRAPHIC STUDY OF MUSCLE REGENERATION IN DYSTROPHIC MICE. (With 10 illustrations.) <i>Bruce E. Walker</i> . . . . .	41
RIGHT VENTRICULAR HYPERTROPHY IN NATIVE CHILDREN LIVING AT HIGH ALTITUDE. (With 4 illustrations.) <i>Javier Arias-Stella and Sixto Recavarren</i> . . . . .	55
BLOOD SUPPLY TO THE ATRIOVENTRICULAR NODE AND BUNDLE OF HIS: A COMPARATIVE STUDY IN PIG, DOG, AND MAN. (With 10 illustrations.) <i>George Lumb and Henry P. Singletary</i> . . . . .	65
PULMONARY VASCULAR LESIONS FOLLOWING THE REPEATED INTRAVASCULAR ADMINISTRATION OF THROMBOPLASTIN. (With 12 illustrations.) <i>Ira Gore, Kenzo Tanaka, Teruyuki Nakashima and Bernard J. Larkey</i> . . . . .	77
STUDIES OF THE MECHANISM OF EXPERIMENTAL NEPHRITIS WITH FLUORESCIN-LABELED ANTIBODY. I. LOCALIZATION AND PERSISTENCE OF INJECTED DUCK ANTI-RAT-LUNG SERUM DURING THE COURSE OF NEPHRITIS IN RATS. (With 8 illustrations.) <i>Ruth S. Friedman, Henry Metzger, Konrad C. Hsu, Mildred Rothenberg, Beatrice C. Seegal and Alfred Urquhart</i> . . . . .	95
PROCEEDINGS OF THE AMERICAN ASSOCIATION OF PATHOLOGISTS AND BACTERIOLOGISTS . . . . .	119

AUGUST, 1962. NUMBER 2

A HISTOLOGIC STUDY OF THE EARLY LESION IN EXPERIMENTAL ALLERGIC ENCEPHALOMYELITIS IN THE GUINEA PIG AND RABBIT. (With 24 illustrations.) <i>Byron H. Waksman and Raymond D. Adams</i> . . . . .	135
STUDIES ON THE PATHOGENESIS OF ACUTE INFLAMMATION. IV. THE FAILURE OF PAPAIN AND HYALURONIDASE TO MODIFY LEUKOCYTIC STICKING WITHIN RABBIT EAR CHAMBERS INJURED BY HEAT. (With 6 illustrations.) <i>Fred Allison, Jr., Margie G. Lancaster and Malcom D. Baxter, Jr.</i> . . . . .	163
STUDIES OF THE MECHANISM OF EXPERIMENTAL NEPHRITIS WITH FLUORESCIN-LABELED ANTIBODY. II. LOCALIZATION AND PERSISTENCE OF INJECTED RABBIT OR DUCK ANTI-RAT-KIDNEY SERUM DURING THE COURSE OF NEPHRITIS IN RATS. (With 9 illustrations.) <i>Beatrice C. Seegal, Konrad C. Hsu, Mildred S. Rothenberg and Madeleine L. Chapeau</i> . . . . .	183

AN ELECTRON MICROSCOPIC STUDY OF VIRAL HEPATITIS IN MICE. (With 16 illustrations.) <i>Donald Svoboda, Anne Nielson, Alvar Werder and John Higgins</i>	205
THE RELATIONSHIP BETWEEN CORTICAL HYPERPLASIA OF THE ADRENALS AND ARTERIOSCLEROSIS. <i>Sigmund L. Wilens and Cassius M. Plair</i>	225
OBSTRUCTIVE GENITOURINARY DISEASE IN MALE STR/1N MICE. (With 5 illustrations.) <i>Leon Sokoloff and Michael F. Barile</i>	233
MACROMOLECULAR HYPERTENSION AND ASSOCIATED PATHOLOGIC CHANGES RESULTING FROM TREATMENT WITH POLYVINYL ALCOHOL. (With 12 illustrations.) <i>C. E. Hall and O. Hall</i>	247

## SEPTEMBER, 1962. NUMBER 3

MORPHOLOGIC AND IMMUNOHISTOCHEMICAL STUDIES OF THE PATHOGENESIS OF INFECTION AND ANTIBODY FORMATION SUBSEQUENT TO VACCINATION OF <i>Macaca irus</i> WITH AN ATTENUATED STRAIN OF <i>Pasteurella tularensis</i> . I. INTRACUTANEOUS VACCINATION. (With 10 illustrations.) <i>Malcolm H. McGavran, John D. White, Henry T. Eigelsbach and Robert W. Kerbsack</i>	259
HISTOCHEMICAL AND ELECTRON MICROSCOPIC STUDY IN A CASE OF HURLER'S DISEASE. (With 7 illustrations.) <i>David Lagunoff, Russell Ross and Earl P. Benditt</i>	273
PERINATAL VASCULAR CHANGES ASSOCIATED WITH UNDERDEVELOPMENT OF THE LEFT HEART. (With 2 illustrations.) <i>Richard L. Naeye</i>	287
MERCURY NEPHROTOXICITY IN THE RAT. I. FACTORS INFLUENCING THE LOCALIZATION OF THE TUBULAR LESIONS. (With 10 illustrations.) <i>A. E. Rodin and C. N. Crowson</i>	297
HEPATOCELLULAR CHANGES IN WILSON'S DISEASE. HISTOCHEMICAL AND ELECTRON MICROSCOPIC STUDIES. (With 10 illustrations.) <i>Fenton Schaffner, Irmin Sternlieb, Tibor Barka and Hans Popper</i>	315
THE EFFECT OF A MURINE HEPATITIS VIRUS ON THE LIVER. AN ANATOMIC AND HISTOCHEMICAL STUDY. (With 16 illustrations.) <i>Wallace A. Jones and Richard B. Cohen</i>	329
RELATIVE CELL MASS OF NORMAL VERSUS FATTY LIVER. (With 4 illustrations.) <i>Alvan G. Foraker and Juan A. Hernandez</i>	349
ALTERATION OF SALIVARY CHLORIDE SECRETION IN WEANLING MICE DURING INFECTION WITH COXSACKIE B-1 (CONN.-5) VIRUS. <i>William B. Wilson and William J. Cheatham</i>	359
THE EFFECT OF CORTISOL AND SALICYLATE UPON THE CONNECTIVE TISSUE. <i>J. C. Houck</i>	365

## OCTOBER, 1962. NUMBER 4

THE CELLULAR AND EXTRACELLULAR MORPHOLOGY OF THE GLOMERULAR STALK. (With 11 illustrations.) <i>David B. Jones, C. Barber Mueller and Max Menejee</i>	373
ARGENTAFFIN CELLS OF THE CAROTID BODY TUMOR. (With 12 illustrations.) <i>Rosario Barroso-Moguel and Isaac Costero</i>	389

MORPHOLOGIC AND IMMUNOHISTOCHEMICAL STUDIES OF THE PATHOGENESIS OF INFECTION AND ANTIBODY FORMATION SUBSEQUENT TO VACCINATION OF <i>Macaca irus</i> WITH AN ATTENUATED STRAIN OF <i>Pasteurella tularensis</i> . II. AEROGENIC VACCINATION. (With 10 illustrations.) John D. White, Malcolm H. McGavran, Patricia A. Prickett, Jerry J. Tulis and Henry T. Eigelsbach . . . . .	405
PAROTITIS IN WEANLING MICE PRODUCED BY COXSACKIE B-1 (CONN.-5) VIRUS. (With 4 illustrations.) William B. Wilson and William J. Cheatham . . . . .	415
IMMUNOPATHOLOGY OF CHRONIC NONSPECIFIC THYROIDITIS (AUTOIMMUNE THYROIDITIS). (With 14 illustrations.) Robert C. Mellors, Witold J. Brzosko and Lawrence S. Sonkin . . . . .	425
THE EFFECTS OF HEPATIC VEIN OCCLUSIONS. (With 10 illustrations.) Warren D. Widmann, Milton R. Hales and Richard H. Greenspan . . . . .	439
THE PATHOGENESIS OF ATRIAL INFARCTION. EXPERIMENTAL DATA. (With 6 illustrations.) George Rona, Clifford I. Chappel and David S. Kahn . . . . .	455
TOPOGRAPHY OF RIGHT VENTRICULAR HYPERTROPHY IN CHILDREN NATIVE TO HIGH ALTITUDE. Sixto Recavarren and Javier Arias-Stella . . . . .	467
PODOHYLLIN AND COLCHICINE CHANGES IN THE VAGINAL MUCOSA OF THE VIRGINAL, PREGNANT, AND OVARIECTOMIZED RAT. A COMPARATIVE STUDY. (With 5 illustrations.) Tilde S. Kline . . . . .	477
MERCURY NEPHROTOXICITY IN THE RAT. 2. INVESTIGATION OF THE INTRACELLULAR SITE OF MERCURY NEPHROTOXICITY BY CORRELATED SERIAL TIME HISTOLOGIC AND HISTOENZYMATIC STUDIES. (With 6 illustrations.) A. E. Rodin and C. N. Crowson . . . . .	485
 NOVEMBER, 1962. NUMBER 5	
HOMOTRANSPLANTATION OF THE CANINE LIVER AS AN ORTHOTOPIC VASCULARIZED GRAFT. HISTOLOGIC AND FUNCTIONAL CORRELATIONS DURING RESIDENCE IN THE NEW HOST. (With 7 illustrations.) Raymond A. McBride, H. Brownell Wheeler, Louis L. Smith, Francis D. Moore and Gustave J. Dammin . . . . .	501
ANAPHYLAXIS IN THE RAT. IMMUNOHISTOCHEMICAL AND HISTOCHEMICAL STUDIES OF THE LIVER. (With 12 illustrations.) Robert H. Fennell, Jr., and Armando Santamaria . . . . .	521
THE ORIGIN OF ASCITES IN EXPERIMENTAL CIRRHOSIS IN THE RAT. (With 3 illustrations.) James B. Gibson and J. Chandler Smith . . . . .	535
PARIENT YOLK SAC CARCINOMA: CLUE TO THE HISTOGENESIS OF REICHERT'S MEMBRANE OF THE MOUSE EMBRYO. (With 13 illustrations.) G. B. Pierce, Jr., A. R. Midgley, Jr., J. Sri Ram and J. D. Feldman . . . . .	549
A STUDY OF THE FINE STRUCTURE OF THE AMYLOID ASSOCIATED WITH FAMILIAL MEDITERRANEAN FEVER. (With 11 illustrations.) Alan S. Cohen, Asher Frensdorff, Sergio Lamprecht and Evan Calkins . . . . .	567
NEURONAL ENZYME ALTERATIONS IN TAY-SACHS DISEASE. (With 14 illustrations.) Sydney S. Lazarus, Barbara J. Wallace and Bruno W. Volk . . . . .	579
HEMORRHAGIC ENCEPHALOPATHY IN CHICKEN EMBRYOS INFECTED WITH INFLUENZA VIRUS. IV. ENDOTHELIAL LOCALIZATION OF VIRAL ANTIGENS DETERMINED BY IMMUNOFLUORESCENCE. (With 11 illustrations.) Edward W. Hook, Charles N. Luttrell, Kim Slaten and Robert R. Wagner . . . . .	593

STUDIES ON COPPER METABOLISM. XXXII. CARDIOVASCULAR LESIONS IN COPPER-DEFICIENT SWINE. (With 11 illustrations.) <i>G. S. Shields, W. F. Coulson, D. A. Kimball, W. H. Carnes, G. E. Cartwright and M. M. Wintrobe</i>	603
AMYLOIDOSIS OF FUNCTIONING ISLET CELL ADENOMAS OF THE PANCREAS. (With 4 illustrations.) <i>E. A. Porta, Roger Yerry and R. F. Scott</i>	623

## DECEMBER, 1962. NUMBER 6

THE INTRARENAL ARTERIAL PATTERN IN RENAL PAPILLARY NECROSIS. A MICRO-ANGIOPHASIC AND HISTOLOGIC STUDY. (With 8 illustrations.) <i>Curt Lagergren and Arne Ljungqvist</i>	633
PARATHYROID HYPERPLASIA, MULTICYSTIC KIDNEYS, OSTEITIS FIBROSA GENERALISATA AND METASTATIC CALCIFICATION IN CIRRHOTIC RATS FED N-2 FLUORENYLDIACETAMIDE. (With 13 illustrations.) <i>Melvin D. Reuber</i>	645
EFFECT OF CHOLESTEROL FEEDING ON THE THYROID GLAND AND VASCULAR STRUCTURES OF THE RABBIT, GUINEA PIG, HAMSTER AND RAT. (With 16 illustrations.) <i>Sol Bernick, Paul R. Patek, Benjamin H. Ershoff and Arthur Wells</i>	661
GAUCHER'S DISEASE: PATHOGENETIC CONSIDERATIONS BASED ON ELECTRON MICROSCOPIC AND HISTOCHEMICAL OBSERVATIONS. (With 9 illustrations.) <i>Edwin R. Fisher and Howard Reidbord</i>	679
OBSERVATIONS ON THE OCCURRENCE AND SIGNIFICANCE OF SEROTONIN IN CARCINOID TUMORS. (With 6 illustrations.) <i>Richard B. Davis</i>	693
HOST RESPONSE TO EGGS OF <i>S. mansoni</i> . I. GRANULOMA FORMATION IN THE UNSENSITIZED LABORATORY MOUSE. (With 16 illustrations.) <i>F. v. Lichtenberg</i>	711
IMMUNOCYTOCHEMICAL STUDIES IN ULCERATIVE COLITIS AND REGIONAL ILEITIS. (With 10 illustrations.) <i>David Kofler, Stanley Minkowitz, Walter Rothman and John Garlock</i>	733
AN ELECTRON MICROSCOPE STUDY OF THE BRUSH BORDER OF THE JEJUNAL COLUMNAR AND CRYPT EPITHELIUM. (With 5 illustrations.) <i>Leonard S. Gottlieb, Ruth Robertson and Norman Zamcheck</i>	747
INDEX OF SUBJECTS	757
INDEX OF AUTHORS	760